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A NEW FORM OF *CYPRIPEDIUM MONTANUM* DOUGL. EX LINDL.¹

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ABSTRACT

A rare color-form of *Cypripedium montanum* Dougl. ex Lindl., characterized by clear green sepals and petals and unmarked lip and staminode, is described as forma *praetertinctum* Sheviak.

Key Words: *Cypripedium montanum*, color-form, western North America

Cypripedium montanum Dougl. ex Lindl f. *montanum* is characterized by a white lip marked internally with magenta, dark reddish-brown sepals and petals, and a yellow staminode with reddish spots. Herbarium work conducted in conjunction with a study of the *C. calceolus* L. complex disclosed a single specimen evidently referable to *C. montanum*, but differing from typical plants of this species in its clear green sepals and petals totally lacking dark pigmentation. These characteristics suggest that this specimen represents a rare but predictable color-form of *C. montanum*. Field work in Alberta and British Columbia during June and July of 1989 disclosed another such plant and confirmed this hypothesis.

In one of several large colonies of *Cypripedium montanum* studied over an area extending for some tens of kilometers, a single plant was found lacking any evidence of reddish pigmentation in the flower. The sepals and petals were clear, light green, without the suffusion of dark reddish brown characteristic of the species and present in all other individuals seen throughout the

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region. The lip was pure white, lacking internal magenta markings and the staminode was clear yellow without reddish spots.

This new form is here formally described in part to facilitate the discussion of interspecific variation in the group.

Cypripedium montanum Dougl. ex Lindl. forma **praetertinctum**
Sheviak

A forma montana floribus sine rubellipigmento (sepalis et petalis viridibus, labello et staminodio immaculato) differt.

Differing from forma *montanum* in its flowers lacking all reddish pigmentation: sepals and petals clear green, lip pure white without magenta markings, and staminode yellow without reddish spots.

TYPE. CANADA: British Columbia: Dry, open, mostly barren eroding bank in spruce-fir forest. Radium. 29 June 1989. C. J. Sheviak, J. K. Sheviak, & W. F. Metzloff 3109/2 (HOLOTYPE: NYS).

ADDITIONAL SPECIMEN. U.S.A.: Oregon: Lane Co.: McKenzie Hwy. May 1932. S. Warg s.n. (OSC 32914).

ETYMOLOGY. From *praeter* (passed by, without [signifying exclusion]) and *tinctum*, past participle of *tingere* (to dye or stain).

In flowers of *Cypripedium montanum* f. *montanum*, perceived differences in the reddish colors of sepals, petals, lip, and staminode apparently arise from the differences in pigments of other colors present in the various organs, and perhaps physical factors, rather than from differences in the reddish pigments themselves. Under magnification, the reddish coloring of the sepals and petals and the spots on the staminode can be seen to be similar in hue to the magenta markings of the lip, and, indeed, the total lack of these colors in f. *praetertinctum* indicates a relationship between the reddish pigments in the different floral organs. Such a pattern of pigmentation is well-known in the genus, and some other species with typically reddish-pigmented flowers exhibit forms with flowers bearing white lips and green sepals and petals (e.g., *C. acaule* Ait. f. *albiflorum* Rand & Redfield; *C. arietinum* R.Br. f. *albiflorum* House).

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